

## **Terms of Reference for the reinforcement of the capacity on Contagious Bovine Pleuropneumonia (CBPP) Diagnostics for the SADC Veterinary Laboratories Network**

### **1. Background Information:**

#### **1.1 Beneficiary :**

The Southern African Development Community (SADC)

#### **1.2 Contracting Authority:**

The Regional Authorizing Officer of the European Development Fund, Executive Secretary, SADC Secretariat, Private Bag 0095, Gaborone, Botswana

#### **1.3 Relevant Background Information:**

The primary role of SADC is to define regional priorities, facilitate integration and development, and assist in mobilizing resources and to maximize the regional impact of projects. The regional approach is designed to complement, support and enhance national activities rather than replace or compete with them. There are currently 14 Member States.

In the course of the institutional reform of SADC in 1992, the former system of sector coordination units in Member States was centralized at the SADC Secretariat in Botswana and regrouped under 4 Directorates. The livestock sub-sector comes under the Food, Agriculture and Natural Resource (FANR) Directorate.

The PRINT Livestock Project was conceived to support the Livestock Sector Unit within FANR with the main objective to develop a sustainable, coherent approach to regional livestock development.

### **2. Project Objectives**

#### **2.1 Overall Objective**

The project's *overall objective* of the PRINT Livestock Project is to contribute to poverty reduction in the SADC region through increased productivity and trade flows in the traditional livestock sector of the SADC Member States. Its *purpose* is to lay down a sustainable base of a coherent regional approach towards the development of the livestock sector in the SADC region.

#### **2.2 Specific Contract Objectives**

The PRINT Livestock Project has four main intervention strategies, namely

- The establishment of a Livestock Information Management System (LIMS) to be established at the SADC Secretariat and in the Member States
- Implementation of national and regional studies in order to identify and fill information gaps in the livestock sector

- Improvement of the human resources in the livestock sector through a regional training
- Participation in development of sound policies and strategies for the livestock sector

The objective of this contract is to improve the diagnostic capability of Veterinary Laboratories in Member States through the application/development of standardised techniques and improved networking between laboratories.

### 2.3 Expected Results of the Consultancy:

- The SADC Network of Veterinary Laboratories has been assisted in the improvement in their diagnostic capabilities with special reference to Contagious Bovine Pleuropneumonia and particularly in countries at risk for CBPP (Mozambique, Angola, Zimbabwe, Malawi, Zambia, Tanzania, DRC, Botswana, Namibia);
- A framework for harmonized quality procedures for CBPP diagnostic techniques is developed in SADC laboratories.
- Intensity of networking and use of harmonized Standard Operating Procedures (SOP's) related to CBPP diagnostic is improved;
- Diagnostic capacity (personnel, procedures and equipment) and reliability of results issued from SADC laboratories and related to CBPP are improved;
- Twinning with a world reference laboratory has been facilitated;
- Use of inter-laboratory comparative testing (round robins) has been promoted in the SADC Network of Veterinary Laboratories, with at least one ring trial conducted and validated by the World reference laboratory;
- A surveillance system and the emergency preparedness with special reference to CBPP has been improved

### 3. **Assumptions and Risks**

It is assumed that government departments are willing to engage in this exercise and authorise the qualified personnel to participate to the organised consultancy, give free access to laboratory equipment, and provide the relevant information and documentation.

### 4. **Scope of the work**

#### 4.1 General

The PRINT Livestock Project will work closely with the SADC Livestock Technical Committee and its Sub-Committees. In this consultancy the focus will

be directed at the Sub-Committee on the Veterinary Laboratories & Diagnostics regarding their role in the generation of quality data for the diagnosis of CBPP.

The project would like to identify opportunities and constraints for laboratories in Member States in executing their important role in supporting the generation of quality data.

The recommendations resulting from the study will be scrutinized with a view to identifying those that can be addressed through means available to the PRINT Livestock Project and those that require additional support (possibly from other donors).

#### 4.2 Specific Activities of the consultancy

- Stage one: Prior to the mission in SADC,
  - Prepare the adoption of harmonized Standard Operating Procedures (SOP's) on quality of CBPP diagnostic in SADC veterinary laboratories and design SADC specific SOP's when needed
    - Prepare reference SOP's for the CBPP diagnostic techniques used at the CBPP World Reference Laboratory to be presented during interventions in SADC
    - Assess the level of use of SOP's and make an inventory of available SOP's in the SADC laboratories with reference to CBPP diagnostics
    - Develop SOP's on quality sampling for field staff (in charge of collecting sample from abattoirs or field visits), including all steps needed for proper submission i.e. sampling, labelling, documenting, and shipment to laboratories
  - Prepare two (2) in situ sessions into SADC veterinary laboratories, in order to demonstrate reference diagnostic techniques and promote SOP's on CBPP diagnosis (serology, isolation, and PCR), to an expected attendance of laboratory technical staff from Mozambique, Angola, Zimbabwe, Malawi, Zambia, Tanzania, DRC, Botswana and Namibia; preferably one session in June 2007, and another in September 2007, the latter to coincide with a PRINT Livestock Project workshop on CBPP control strategies
    - Establish contact with the chairman and members of the Sub-Committee on Veterinary Laboratories & Diagnostics for the selection of the 2 laboratories to be used for demonstrations;
    - Establish the availability of the necessary equipments (PCR,

cElisa), kits (serological tests; CFT; cElisa), and reagents (for bacteriological culture & agent isolation) for in situ demonstrations of techniques dealing with *Mycoplasma spp* cultures and isolation, and for CBPP serology,

- Participate in the selection of the laboratory technicians to attend the sessions
- Indicate to PRINT Livestock Project the detailed specifications for the purchase of necessary reagents as planned under PE 3 Direct Labour budget
- Participate in the preliminary organisation of the workshop planned by the PRINT Livestock Project in September 2007
  - Participate in the selection of international experts to be invited by the PRINT Livestock Project and to present papers at the workshop
- Stage two: intervention in SADC,
  - Demonstrate CBPP-related SOP's and techniques to the group of selected laboratory technicians, in two (2) SADC laboratories during one session tentatively planned in June 2007, and another in September 2007 (the latter to coincide with a PRINT Livestock Project workshop on CBPP control strategies,
    - Present and promote adoption of SOP's on quality sampling for field staff (in charge of collecting samples from abattoirs or field visits), including all steps needed for proper submission i.e. sampling, labelling, documenting, and shipment to laboratories
    - Develop standard SOP's on laboratory diagnostic techniques, including standard registration forms, to be used by SADC laboratories in their context (particularly targeting laboratories which do not have any SOP's at the time of the consultancy)
    - Make recommendations on the necessary equipment needed to reproduce the techniques (including reagents/consumables and testing procedures) so that future financial planning can take them into account for provision of appropriate materials in SADC laboratories;
  - After the second session, participate in a workshop organized by the PRINT Livestock Project in one SADC Member state:
    - for the team leader and the SADC expert, participate in the

workshop organized by PRINT Livestock Project planned in September 2007 on CBPP regional control strategies, act as facilitators and as reference experts, participate in the production of the workshop report

- present intermediary results of the ongoing laboratory consultancy, i.e. progress made by laboratories, with regards to laboratory diagnosis of CBPP and adoption of SOP's, present the launching of the inter-laboratory comparative testing
- Stage Three: after the second session in SADC and after the workshop, launch a round robin (inter-laboratory comparative testing) within the SADC veterinary laboratory network, and analyze the results
- Carry out at least one inter-laboratory comparative testing, to serve as a reference for future similar activities to be carried out by the SADC laboratory network
  - Send reference material on CBPP (i.e. strain and bovine sera) to be analyzed by the laboratories selected, requiring them to use their SOP's and send back diagnostic results within 15 days to the CIRAD World reference laboratory
  - Open a helpdesk for SADC laboratory to ask question to the consultants in the intermediate phase, and liaise with laboratories
  - Provide participating laboratories with the necessary customs clearance documents for the samples to be sent to CIRAD World Reference Laboratory
  - Receive samples from the laboratories and analyze the results
- Stage Four: Produce a report on the consultancy, and provide electronic documentation on CBPP diagnostics and control strategies
- Produce a report on the consultancy,
    - Formulate recommendations on strategies to improve the diagnostics and the control of CBPP diagnosis in the region, and to promote the participation of SADC laboratories in international projects
    - Attach the necessary annexes including electronic ones
  - Prepare and disseminate a multimedia tool to provide electronic documentation on CBPP diagnostics and control strategies

- Develop a CD/DVD with an user friendly interface to access contents and containing major documentation and guidelines to sustain awareness on the methods and techniques demonstrated during the consultancy, i.e. SOP's related to CBPP diagnostics techniques and good practices, highlighting the main techniques used during the consultancy
- In liaison with PRINT Livestock Project, assemble and compile in the CD/DVD important documents available in English, French, and Portuguese, originating from the international community and related to CBPP control strategies and programs
- Liaise with PRINT Livestock Project for the appropriate dissemination of the CD/DVD through the Laboratory network of SADC

## **5. Logistics and Timing**

### **5.1 Location**

The consultancy shall be carried out partly in Europe and partly in the SADC region at two laboratories selected from the SADC network of veterinary laboratories. The mission in the SADC region shall start and end in Gaborone, Botswana.

### **5.2 Commencement date and period of execution**

The intended commencement date is 1<sup>st</sup> June 2007, with the start of consultancy in Europe, followed by first mission in the SADC region on 15<sup>th</sup> June 2007. The rest of the consultancy will be undertaken during the months of June, September and November as detailed in the indicative excel time table attached. The total period of execution will be 6 calendar months.

## **6. Required input**

### **6.1 Personnel**

Three (3) short-term consultants, equivalent to a 4 MM (man-months) consultancy.

### **6.2 Qualifications and skills**

- one internationally recognized microbiologist (1.5 MM) with a strong background in veterinary diagnostics, quality management, who will be the team leader and will handle the preparation and supervision of the consultancy, prior to visiting the SADC region, during the in situ sessions, and in the follow up phase. Not less than 15 years of proven professional

experience in internationally and nationally recognized institutions, specialization on CBPP will be an advantage;

- one advanced technician microbiologist (0,75 MM) with a strong background in veterinary diagnostics and use of SOP's, to participate in the consultancy and analyze the samples during the round robin. Not less than 5 years of proven professional experience in internationally and nationally recognized institutions, specialization on CBPP diagnostic techniques.
- one international laboratory microbiologist from one of the SADC Member States with a strong background in veterinary diagnostics, to participate in the SADC region-based part of the consultancy, to backstop the other experts during preparation, in situ sessions, and in reporting phase, and to relay their action after the end of the consultancy (1.75 MM); Not less than 15 years of proven professional experience in internationally and nationally recognized institutions, specialization on CBPP diagnostic techniques will be an advantage

#### 6.3 Other requirements

All three experts: Fluency in English. A working knowledge of French and/or Portuguese will be of advantage.

#### 7. **Reports**

A draft Final Report (one hard copy plus one electronic version and the CD/DVD) on the study should be submitted to the Contracting Authority, not later than 3 weeks after completion of the consultancy. The Contracting Authority will make comments within 30 days after receiving the report. The comments will need to be integrated into the report before it can be accepted as final.

The Final Report should be submitted to the Contracting Authority, attention of the Director FANR, in twenty (20) hard copies within 2 weeks after receiving the comments. The report shall be written in English.